GeoEngineering, Inc.
Consultants in Groundwater Control

100 Ford Rd. Denville, N.J. 07834 (201) 625 0700

April 25, 1989

M.A. Hanna Company
1301 E. Ninth Street
Suite 3600
Cleveland, Ohio 44114-1829

ATTN: Richard E. Hahn

SUBJ: L.E. Carpenter, Wharton, New Jersey
1986 Administrative Consent Order
January through March 1989 Progress Report

Gentlemen:

Per pargraph 35 of the 1986 Administrative Consent Order between L.E. Carpenter & Company and the NJDEP, the following progress report is submitted detailing the status of the activities at the former L.E. Carpenter, Wharton facility.

Between January 1 and March 31, the Auto-Skimmer recovered approximately 73.5 gallons from MW-10. A total of 4078.3 gallons of product have been recovered as of March 31, 1989.

Attached are the figures depicting contours for piezometric water level and the top of floating solvent elevations, and isopachs of solvent thickness for the months of January, February and March, 1989. A summary table for elevations of ground water, floating solvent and three locations on the Rockaway River, and for solvent thickness precedes each month's figures.

On February 27, 1989, groundwater samples were collected at five designated monitor wells. Enseco-Erco Laboratory of Cambridge, Massachusetts, was contracted for the analytical work. The results and laboratory QA/QC documentation are attached.

In accordance with M.A. Hanna's April 19, 1989 authorization, a multi-point skimming system will be installed in the near future. Recovery operations will be performed simultaneously at MW-6, MW-7 and MW-10.

If you have any questions pertaining to the above, please do not hesitate to call.

Sincerely,

GEOENGINEERING, INC.

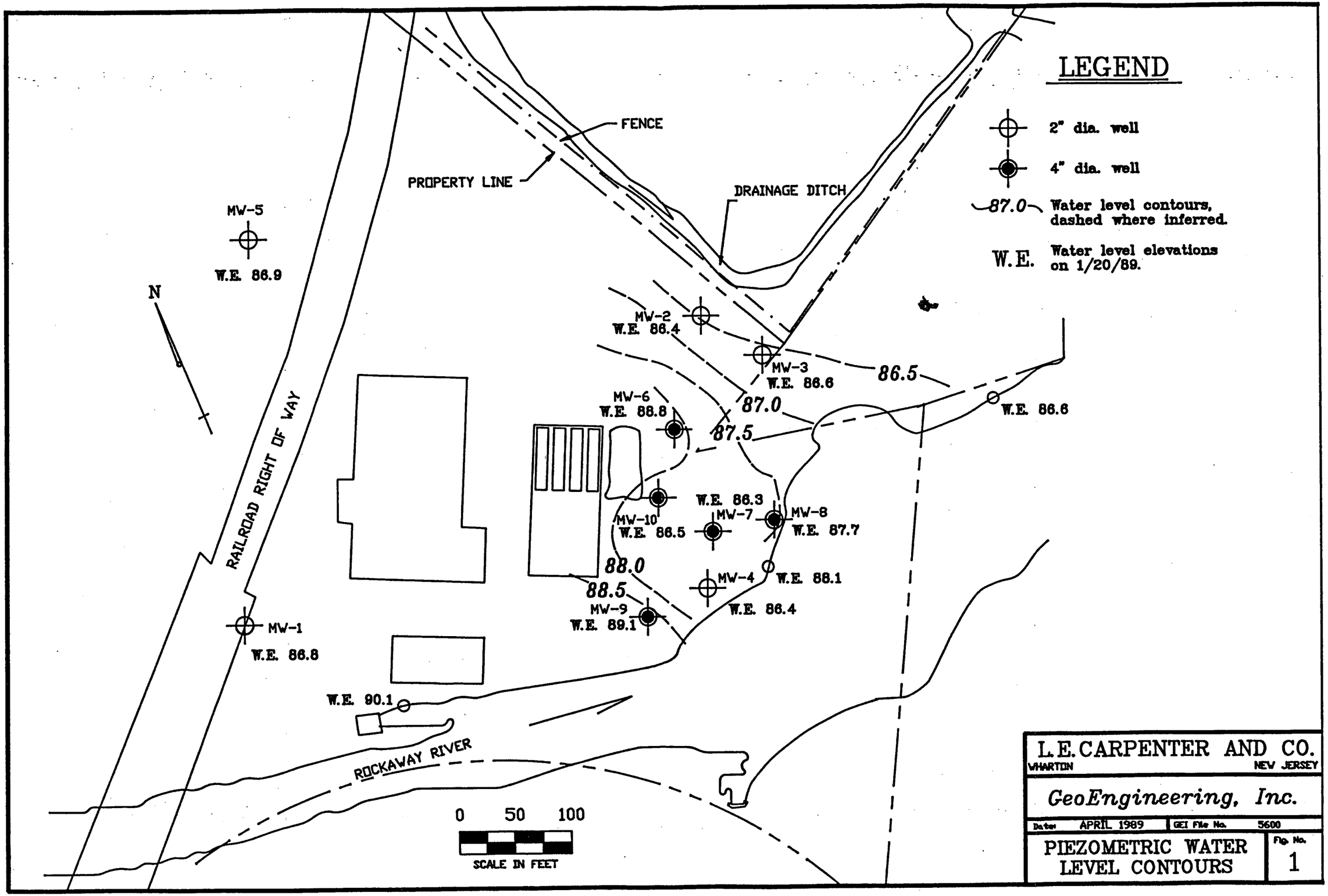
William W. Dunnell IV
Project Manager

WWD/ebt
Attachment
cc: T. Schwartz (5)

TABLE A: SOLVENT THICKNESS AND PIEZOMETRIC EVELATIONS ON 1/20/89

WELL NO.	PIEZOMETRIC SURFACE ELEVATION (feet above MSL)	FLOATING SOLVENT SURFACE ELEVATION (feet above MSL)	MEASURED SOLVENT THICKNESS IN MONITORING WELL (feet)	CALCULATED FLOATING SOLVENT THICKNESS (feet)
1	86.8 (1)	86.9	1.43	0.21
2	86.4 (1)	86.6	0.17	0.03
3	86.6 (1)	86.6	0.49	0.07
4	86.4 (1)	no solvent	0.00	0.00
5	86.9 (1)	no solvent	0.00	0.00
6	88.8 (2)	88.7	0.40	0.06
7	86.3 (2)	86.1	1.39	0.21
8	87.7 (3)	no solvent	0.00	0.00
9	89.1 (3)	no solvent	0.00	0.00
10	86.5 (2)	86.5	0.03	0.00
DRAINAGE DITCH	90.7			
RIVER PT. 1	90.1			
RIVER PT. 2	88.1			
RIVER PT. 3	86.6			

N O T E S: (1) Depth to water measured inside GEOMON Groundwater Sampler/Piezometer (inlet screen is below solvent level)
(2) Calculated piezometric surface, assuming solvent specific gravity is 0.87.
(3) No solvent observed in monitoring well



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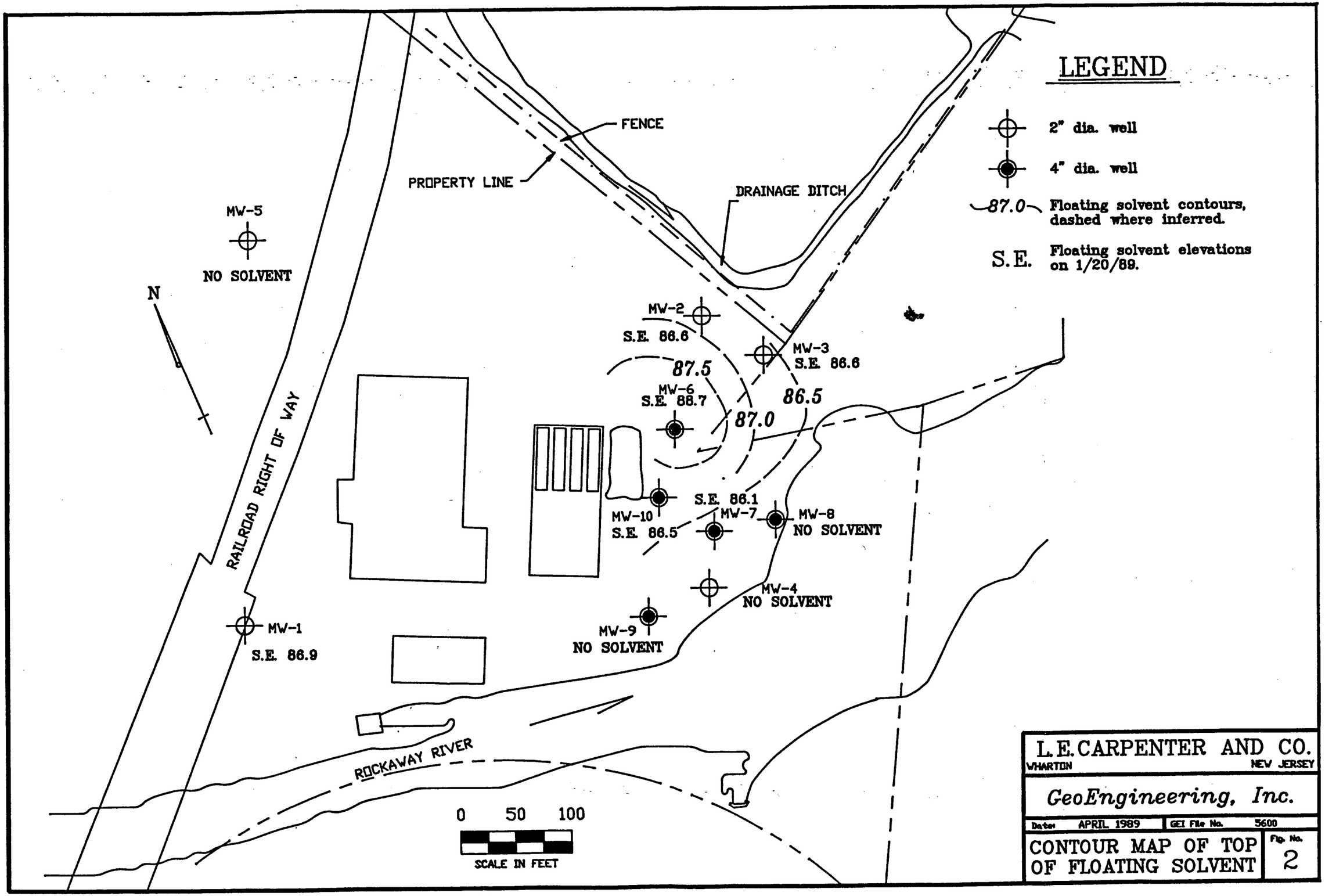
Date: APRIL 1989 | GEI File No. 5600

PIEZOMETRIC WATER LEVEL CONTOURS

Fig. No. 1



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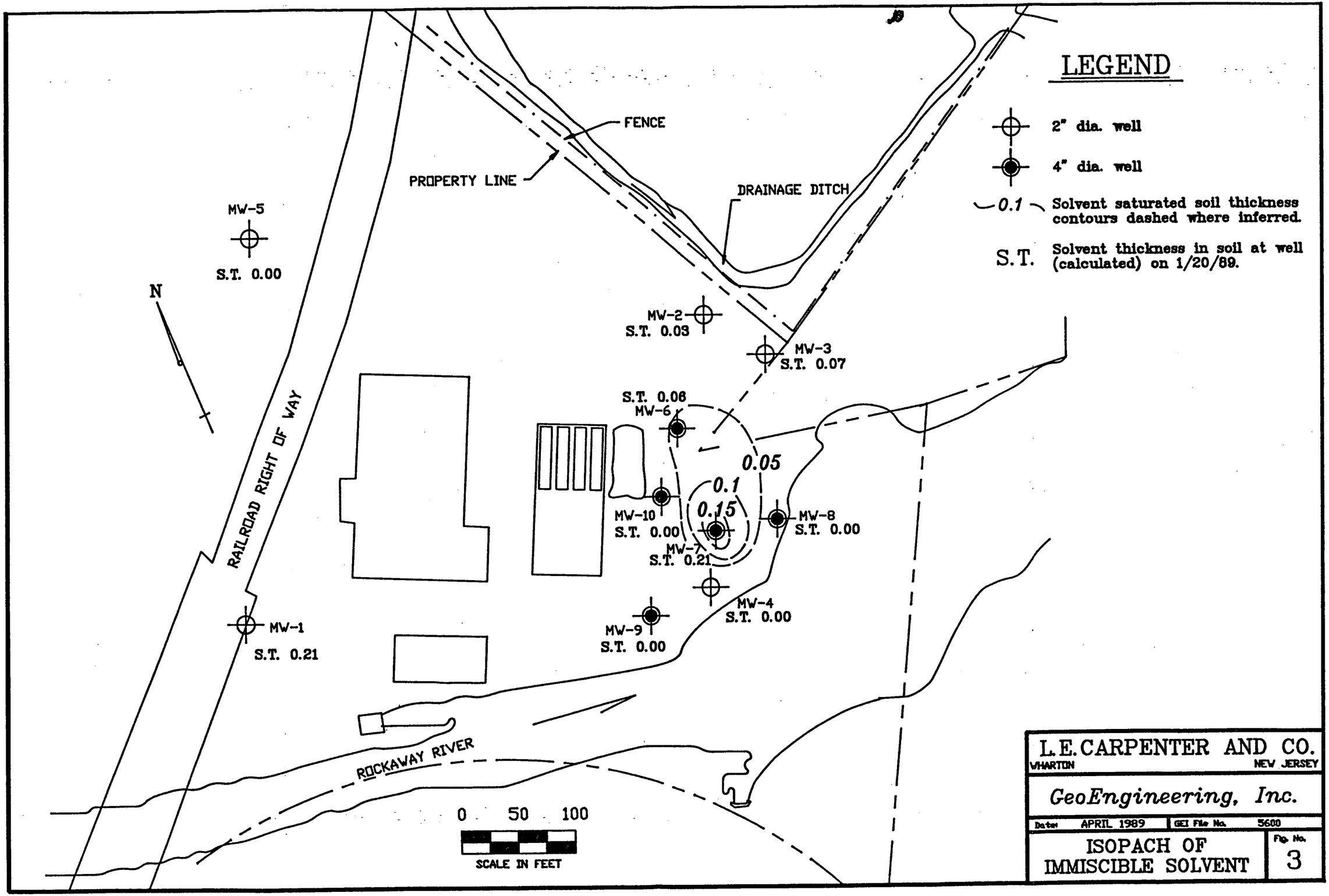
CONTOUR MAP OF TOP OF FLOATING SOLVENT

Fig. No. 2



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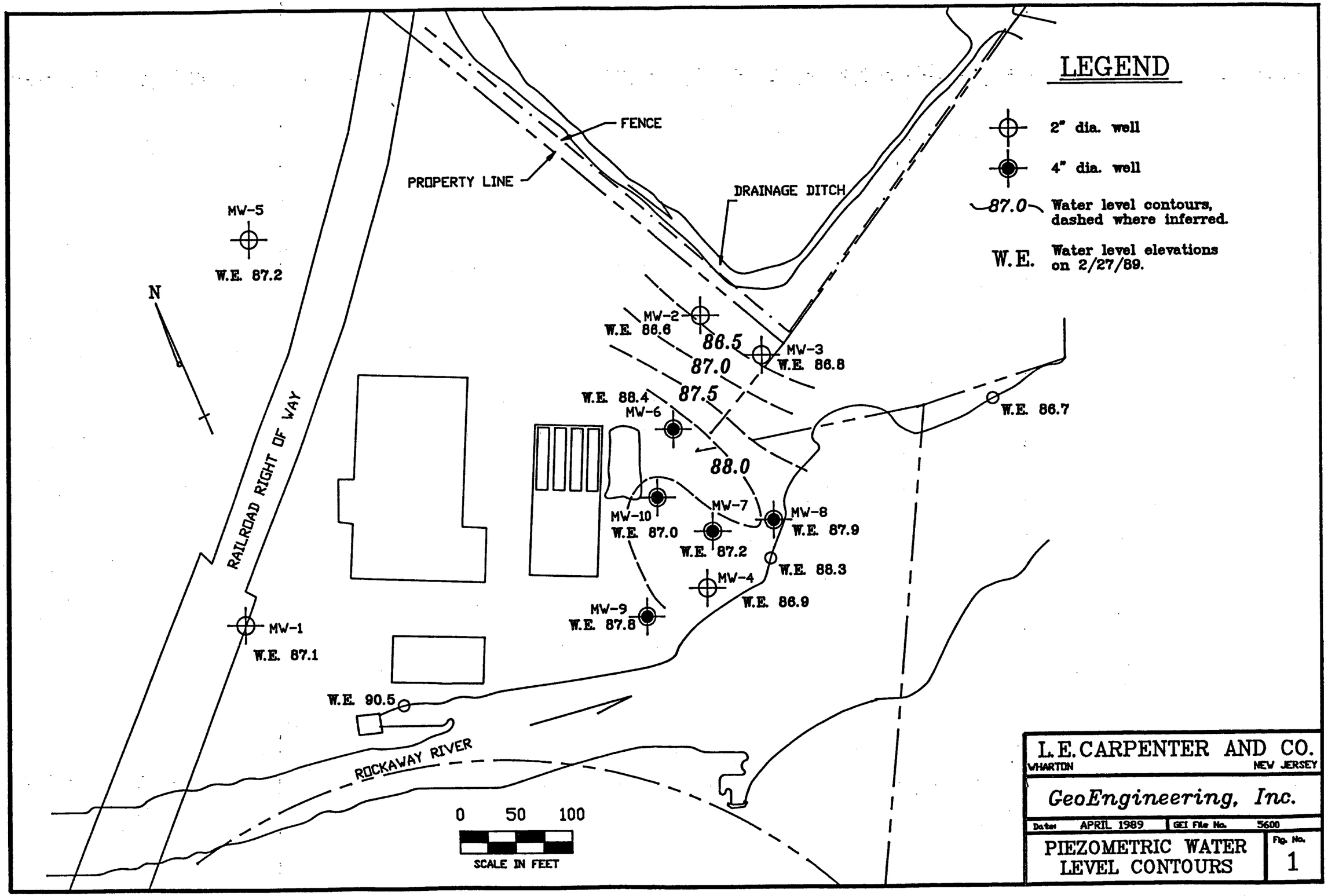
ISOPACH OF IMMISCIBLE SOLVENT

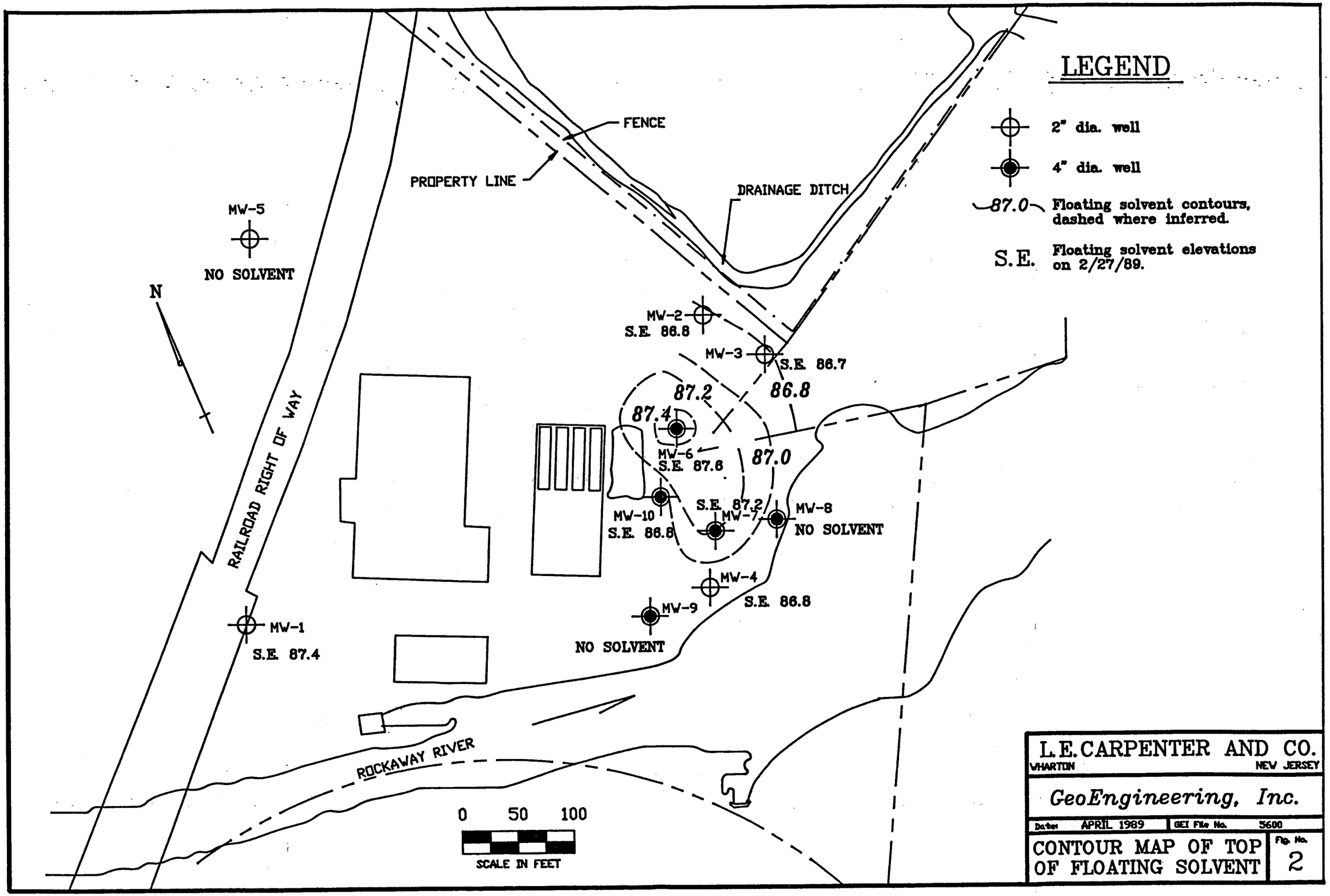
Fig. No. 3

TABLE A: SOLVENT THICKNESS AND PIEZOMETRIC EVELATIONS ON 2/27/89

WELL NO.	PIEZOMETRIC SURFACE ELEVATION (feet above MSL)	FLOATING SOLVENT SURFACE ELEVATION (feet above MSL)	MEASURED SOLVENT THICKNESS IN MONITORING WELL (feet)	CALCULATED FLOATING SOLVENT THICKNESS (feet)
1	87.1 (1)	87.4	1.09	0.16
2	86.6 (1)	86.8	0.27	0.04
3	86.8 (1)	86.7	0.49	0.07
4	86.9 (1)	86.8	0.06	0.01
5	87.2 (1)	no solvent	0.00	0.00
6	88.4 (2)	87.6	5.41	0.81
7	87.2 (2)	87.2	0.13	0.02
8	87.9 (3)	no solvent	0.00	0.00
9	87.8 (3)	no solvent	0.00	0.00
10	87.0 (2)	86.8	1.10	0.16
DRAINAGE DITCH	90.8			
RIVER PT. 1	90.5			
RIVER PT. 2	88.3			
RIVER PT. 3	86.7			

N O T E S: (1) Depth to water measured inside GEOMON Groundwater Sampler/Piezometer (inlet screen is below solvent level)
(2) Calculated piezometric surface, assuming solvent specific gravity is 0.87.
(3) No solvent observed in monitoring well


LEGEND
2" dia. well
4" dia. well
87.0 Water level contours, dashed where inferred.
W.E. Water level elevations on 2/27/89.
FENCE
PROPERTY LINE
DRAINAGE DITCH
RAILROAD RIGHT OF WAY
ROCKAWAY RIVER
N
MW-1
W.E. 87.1
MW-2
W.E. 86.6
MW-3
W.E. 86.8
MW-4
W.E. 86.9
MW-5
W.E. 87.2
MW-6
W.E. 88.4
MW-7
W.E. 87.2
MW-8
W.E. 87.9
MW-9
W.E. 87.8
MW-10
W.E. 87.0
W.E. 90.5
W.E. 88.3
W.E. 86.7
86.5
87.0
87.5
88.0
0 50 100
SCALE IN FEET
L.E. CARPENTER AND CO.
WHARTON NEW JERSEY
GeoEngineering, Inc.
Date APRIL 1989
GEI File No. 5600
PIEZOMETRIC WATER LEVEL CONTOURS
Fig. No. 1



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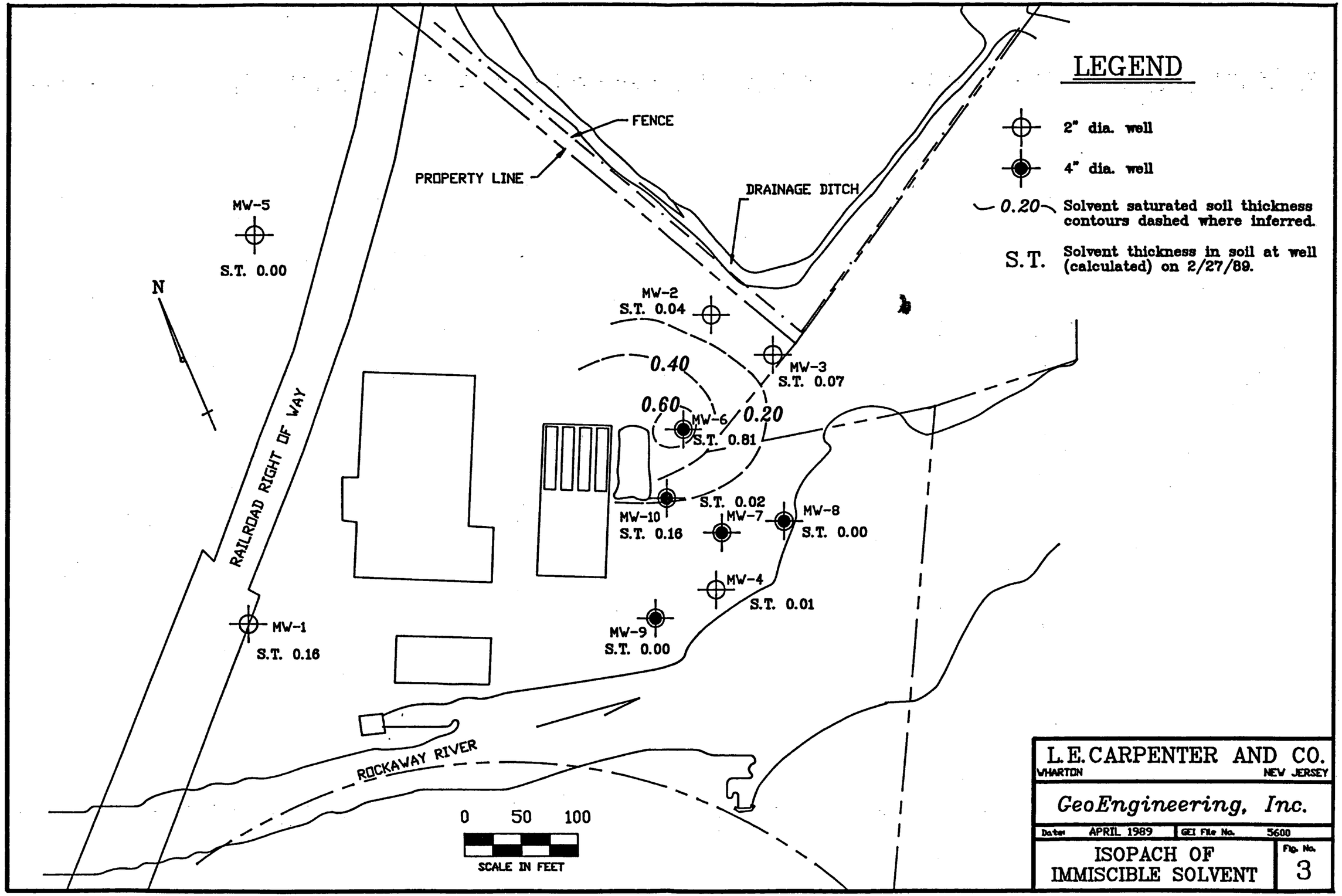
CONTOUR MAP OF TOP OF FLOATING SOLVENT

Fig. No. 2



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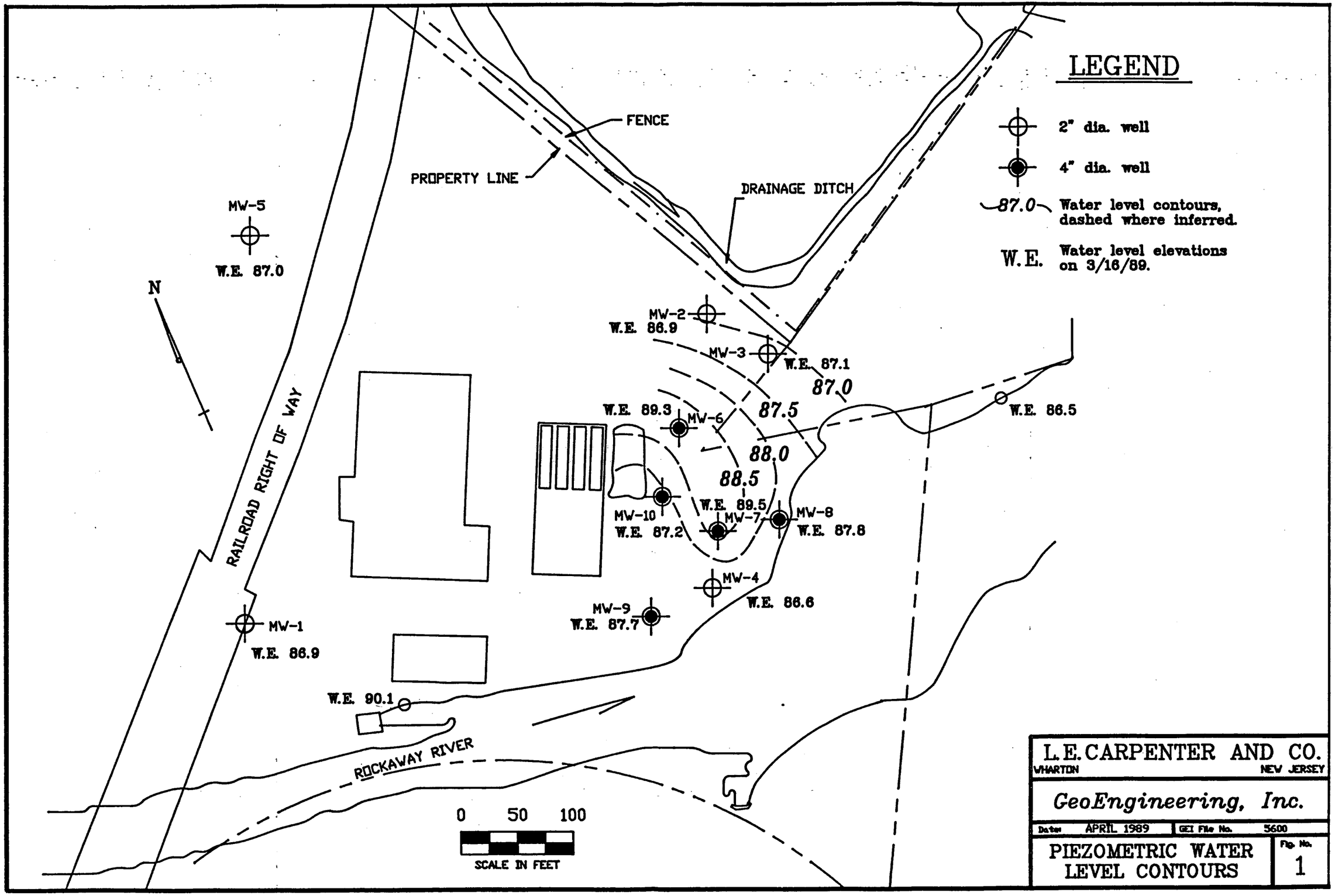
ISOPACH OF IMMISCIBLE SOLVENT

Fig. No. 3

TABLE A: SOLVENT THICKNESS AND PIEZOMETRIC EVELATIONS ON 3/16/89

WELL NO.	PIEZOMETRIC SURFACE ELEVATION (feet above MSL)	FLOATING SOLVENT SURFACE ELEVATION (feet above MSL)	MEASURED SOLVENT THICKNESS IN MONITORING WELL (feet)	CALCULATED FLOATING SOLVENT THICKNESS (feet)
1	86.9 (1)	87.3	1.45	0.22
2	86.9 (1)	87.2	0.16	0.02
3	87.1 (1)	86.8	1.60	0.24
4	86.6 (1)	87.2	0.30	0.04
5	87.0 (1)	no solvent	0.00	0.00
6	89.3 (2)	87.7	10.91	1.63
7	89.5 (2)	88.1	9.28	1.39
8	87.8 (3)	no solvent	0.00	0.00
9	87.7 (3)	no solvent	0.00	0.00
10	87.2 (2)	87.1	1.00	0.15
DRAINAGE DITCH	90.6			
RIVER PT. 1	90.1			
RIVER PT. 2	88.1			
RIVER PT. 3	86.5			

N O T E S: (1) Depth to water measured inside GEOMON Groundwater Sampler/Piezometer (inlet screen is below solvent level)
(2) Calculated piezometric surface, assuming solvent specific gravity is 0.87.
(3) No solvent observed in monitoring well


LEGEND
2" dia. well
4" dia. well
87.0 Water level contours, dashed where inferred.
W.E. Water level elevations on 3/16/89.
FENCE
PROPERTY LINE
DRAINAGE DITCH
MW-5
W.E. 87.0
N
RAILROAD RIGHT OF WAY
MW-2
W.E. 86.9
MW-3
W.E. 87.1
87.0
87.5
88.0
88.5
W.E. 89.3
MW-6
W.E. 86.5
MW-10
W.E. 87.2
W.E. 89.5
MW-7
MW-8
W.E. 87.8
MW-4
W.E. 86.6
MW-9
W.E. 87.7
MW-1
W.E. 86.9
W.E. 90.1
ROCKAWAY RIVER
0 50 100
SCALE IN FEET
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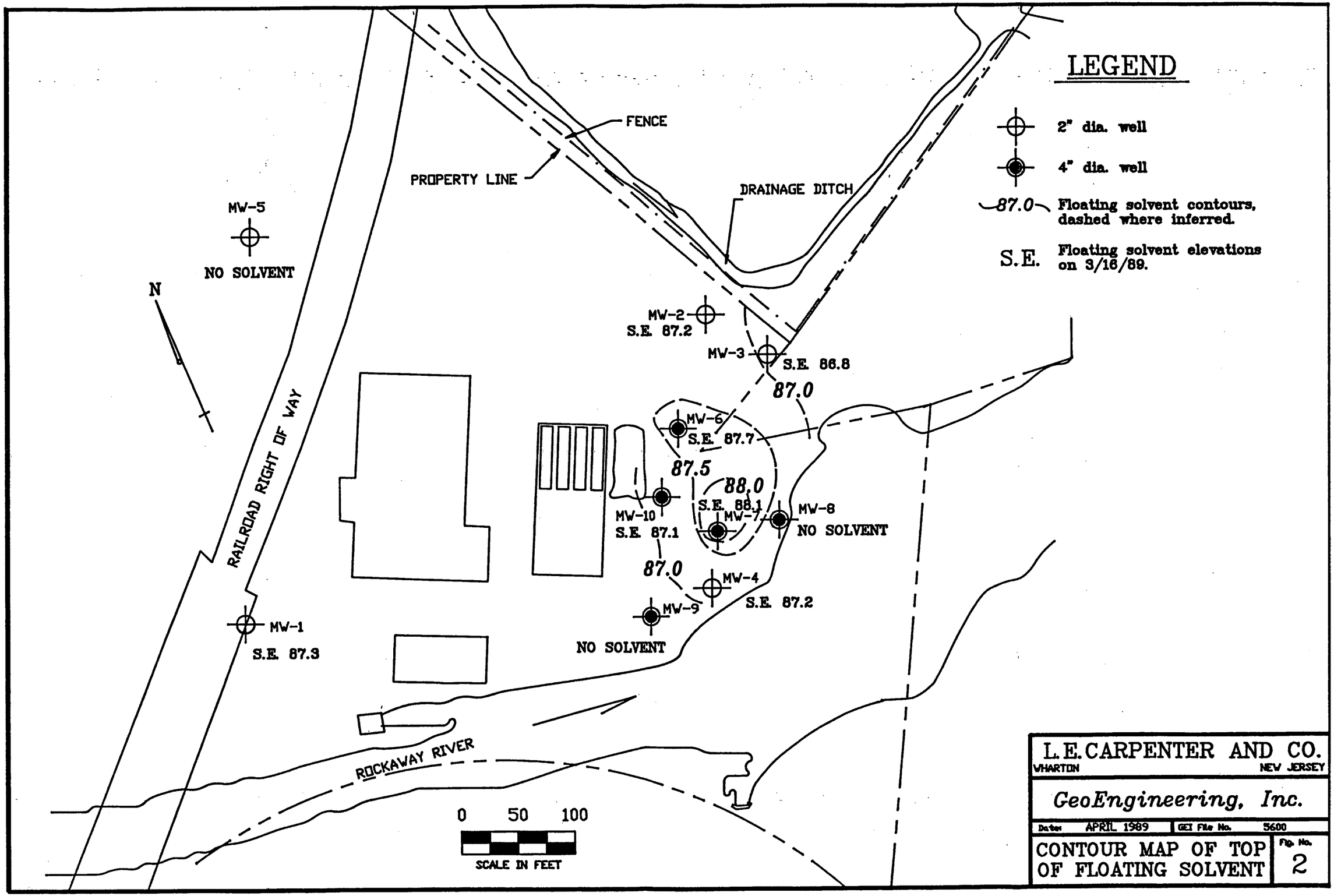
PIEZOMETRIC WATER LEVEL CONTOURS
Fig. No. 1


LEGEND
2" dia. well
4" dia. well
87.0 Floating solvent contours, dashed where inferred.
S.E. Floating solvent elevations on 3/16/89.
FENCE
PROPERTY LINE
DRAINAGE DITCH
MW-5
NO SOLVENT
N
MW-2
S.E. 87.2
MW-3
S.E. 86.8
87.0
MW-6
S.E. 87.7
87.5
88.0
S.E. 88.1
MW-10
S.E. 87.1
MW-7
MW-8
NO SOLVENT
87.0
MW-4
S.E. 87.2
MW-9
NO SOLVENT
RAILROAD RIGHT OF WAY
MW-1
S.E. 87.3
ROCKAWAY RIVER
0 50 100
SCALE IN FEET
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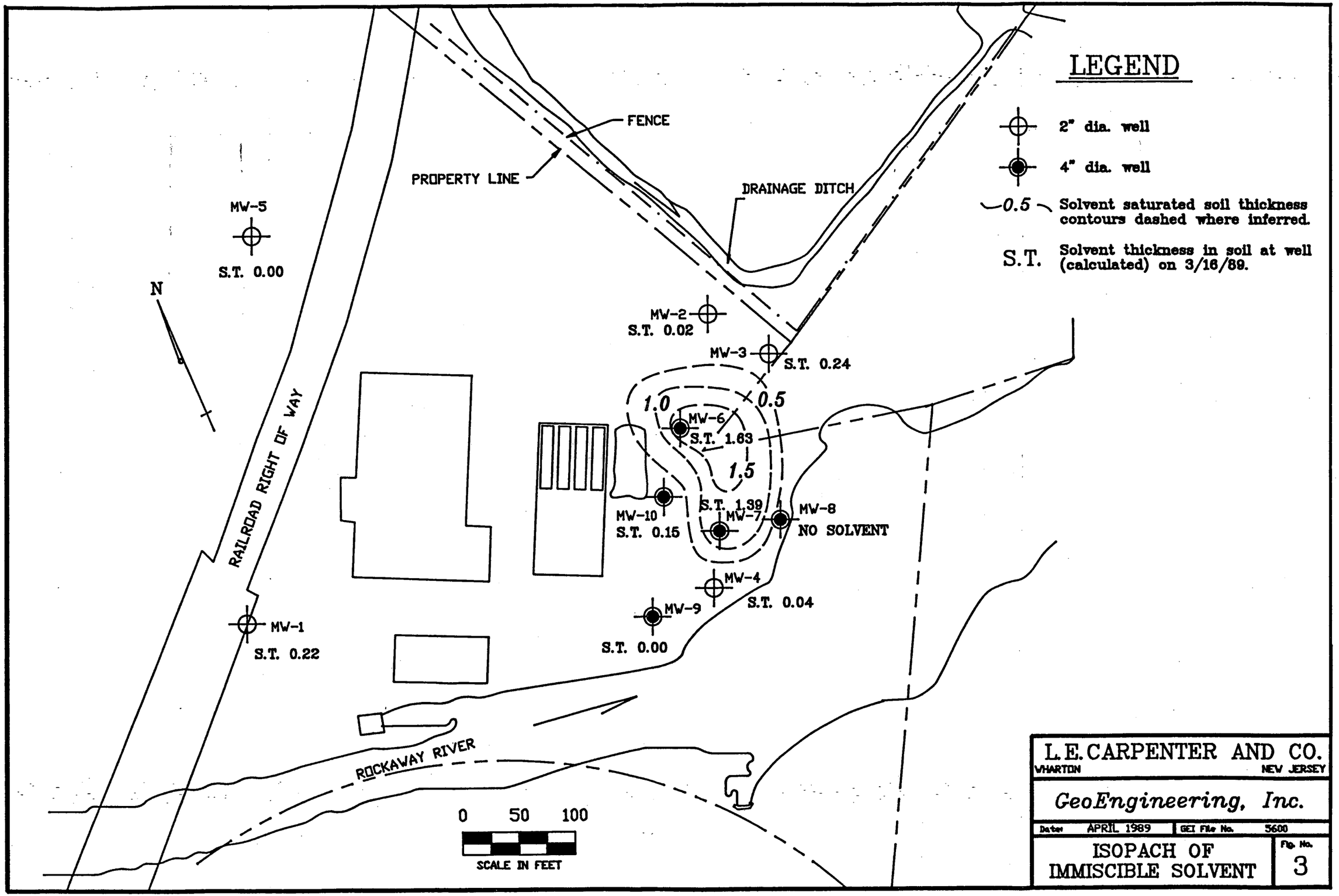
CONTOUR MAP OF TOP OF FLOATING SOLVENT
Fig. No. 2


LEGEND
2" dia. well
4" dia. well
0.5 Solvent saturated soil thickness contours dashed where inferred.
S.T. Solvent thickness in soil at well (calculated) on 3/16/89.
FENCE
PROPERTY LINE
DRAINAGE DITCH
MW-5
S.T. 0.00
N
MW-2
S.T. 0.02
MW-3
S.T. 0.24
1.0
0.5
MW-6
S.T. 1.63
1.5
MW-10
S.T. 0.15
S.T. 1.39
MW-7
MW-8
NO SOLVENT
MW-4
S.T. 0.04
MW-9
S.T. 0.00
MW-1
S.T. 0.22
RAILROAD RIGHT OF WAY
ROCKAWAY RIVER
0 50 100
SCALE IN FEET
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